

## Response to Anonymous Referee #1's Additional Comment

Comments from Anonymous Referee # 1:

*I wish to add only the suggestion that the authors are encouraged to contribute the model code to the GMD archive (supplemental material). This will allow others to use this code, or parts of it, in order to reproduce the work here or to improve their own models.*

**Response:** We agree with this suggestion and will make our components of the model code, and the associated configuration and parameter files, available as supplemental material so that anyone can download them and reproduce our results using the full model. Since the complete Earth system model is too large to provide as supplementary material and provided and maintained at the University of Victoria, we will provide a ReadMe file as part of the supplemental material that contains a link to the University of Victoria's Earth System Climate modeling website so that readers can download the full model (a link to the UVic website is also provided in Section 4.1 of the text and in the Code repository section). Additionally, we will provide a link to a repository at the Helmholtz Centre for Ocean Research Kiel (GEOMAR) that will contain the same code as in the supplementary material. Furthermore, we will make a restart file (10,000 year spin-up) available in this repository so that anyone can start and use the model in a spun-up state. We will also provide the model output from our runs so that it is available for comparison. At the GEOMAR repository we will also periodically provide updates of our most recent code, spun-up restart files, configurations files, and parameter sets to account for the periodic updates and bug corrections to other portions of the UVic ESCM model code (see Code repository section).